

At section 2 of the office action, claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Srikantan et al.* (U.S. Patent Application Publication No. 2001/0029548 A1, hereafter referred to as *Srikantan*), in view of *Luthra et al.* (U.S. Patent No. 6,434,195 B1, hereafter referred to as *Luthra*).

In rejecting these claims, the Examiner states that *Srikantan* discloses a signaling method for use in stream switching among a plurality of streams. The Examiner admits that *Srikantan* fails to disclose providing in the bitstream information indicative of the switching point and at least one recovery point which defines a first correct or approximate correct picture in output order in the second stream decoded in a client subsequent to stream switching, wherein the recovery point is different from the switching point. The Examiner points to *Luthra* for disclosing this feature (Figures 1-2; Abstract; col.2, line 15 to col.3, line 11 and col.4, line 31 to col.5, line 24).

It is respectfully submitted that *Srikantan* is concerned with handling events received at a number of sockets in a computer server configured to serve clients. In one embodiment, one socket is shared by a number of clients or consumers (paragraphs [0006] – [0007]). In another embodiment, a plurality of registered sockets are associated with a plurality of event consumers, wherein registered sockets may be divided into multiple collections so that the sockets within a collection can share a processor thread to detect events and to notify event consumers (paragraph [0009]). *Srikantan* does **not** disclose stream switching wherein a first bitstream is switched to a second bitstream at a switching point or disclose a recovery point which defines a first correct or approximately correct picture in the second bitstream.

Srikantan does **not** disclose that the **recovery point** is different from the **switching point** as claimed.

Luthra is concerned with splicing of video data in progressively refreshed video streams. In progressively refreshed streams, sequential video images are refreshed one region at a time. A different region in each of the plurality of video images is communicated without compression during a refresh cycle (col.1, lines 53-61). In video data splicing where compressed video from a second stream is used to replace compressed video of a first stream at an insertion point, a determination is made as to whether the video from the second stream

is progressively refreshed. If the video from the second stream is progressively refreshed, then, before the replacement, the video from the second stream is decompressed sufficiently so as to allow the recovery and recompression of the first replacement video frame in the second stream before replacement commences (col.2, lines 15-28). The recovered first replacement video frame is recompressed as an intra-code (I) frame so that the insertion of the video from the second stream can commence at the insertion point using the I frame. Since the I frame comprises all of the information necessary to reconstruct a full frame of data and is not progressively refreshed, it enables a clean switch from the first stream to the second stream (col.2, lines 33-41). As such, the I frame is a picture which is correct in content in the replacement video stream at the insertion point. Since a recovery point is defined as the first correct or approximately correct picture in the replacement stream, the I frame is the recovery point at the insertion point. Thus, in *Luthra*, the recovery point is the same as the switching point.

If the spliced video sequence is further spliced at a second insertion point, the subsequent replacement video stream is also checked to determine whether this subsequent replacement video stream is progressively refreshed. If the subsequent replacement video stream is progressively refreshed, it is decompressed so as to allow the recovery and recompression of the first frame of the subsequent replacement video stream. This subsequent replacement video stream can be the first video stream (col.2, lines 42-57).

According to *Luthra*, the replacement or substitute video can be stored with the frame encoded as an I frame so that the insertion of the substitute video is commenced at the insertion point using the I frame as the first inserted frame (col.2, lines 58-64).

The purpose of decompressing the replacement video stream, if the replacement video stream is progressively refreshed, is to make the first replacement frame at the insertion point an I frame. Since the I frame comprises all of the information necessary to reconstruct a full frame of data and is not progressively refreshed, it enables a clean switch from the first stream to the second stream (col.2, lines 33-34; col.4, lines 36-44). Without making the first replacement frame of the progressively refreshed video an I frame, the progressively refreshed related artifacts will appear at the insertion point or points (col.2, lines 4-8). *Luthra* provides a method to minimize the progressively refreshed related artifacts in video splicing (col.2, lines 9-12; col.4, lines 31-37).

At col.4, line 46 to col.5, line 9, *Luthra* illustrates how a segment of a second video stream S2 replaces a segment of a first video stream S1 at two insertion points t1 and t2 (Figure 1). At col.5, lines 11-24), *Luthra* illustrates how a first video stream S1 is switched to a second video stream S2 at a switching point t1 (Figure 2). In both cases, the first frame at the insertion point is an I frame which is also a recovery point.

In sum, *Srikantan* does **not** disclose that the **recovery point** is different from the **switching point** as claimed. *Luthra* does **not** disclose that a **recovery point** in a switched video stream or spliced video stream is different from the **switching point** or the **insertion point**.

For the above reasons, the cited *Srikantan* and *Luthra* references, whether used individually or in combination, fail to render independent claims 1, 8, 13 and 21 obvious.

As for claims 2-7, 9-12, 14-20 and 22-24, they are dependent from claims 1, 8, 13 and 21 and recite features not recited in claims 1, 8, 13 and 21. For reasons regarding claims 1, 8, 13 and 21 above, the cited *Srikantan* and *Luthra* references, also fail to render claims 2-7, 9-12, 14-20 and 22-24 obvious.

CONCLUSION

Claims 1-24 are allowable. Early allowance of claims 1-24 is earnestly solicited.

Respectfully submitted,



Kenneth Q. Lao
Registration No. 40,061

Date: July 1, 2008

WARE, FRESSOLA, VAN DER SLUYS
& ADOLPHSON LLP
Bradford Green, Building 5
755 Main Street, PO Box 224
Monroe, CT 06468
(203) 261-1234